

# Recreation/Senior + Aquatic Center Study

City Council Meeting | July 19, 2016

## Project Update



**SINK  
COMBS  
DETHLEFS**  
ARCHITECTURE DESIGN

**GREENPLAY** LLC  
The Leading Edge In Parks, Recreation  
And Open Space Consulting



# Recreation/Senior + Aquatic Center Study

City Council Meeting | July 19, 2016

## Agenda

Background and Public Outreach  
Recreation/Senior Center Design Update  
Memory Square Design Update  
Sustainable Opportunity  
Cost Analysis  
Operational Revenue and Expense Analysis



**SINK  
COMBS  
DETHLEFS**  
ARCHITECTURE DESIGN



*The Leading Edge In Parks, Recreation  
And Open Space Consulting*

## PROJECT BACKGROUND

- November/December 2015
  - Kickoff meetings with Task Force/Staff
  - 2 Open Houses advertised + conducted
  - Facility tours conducted with Task Force/Staff
- January 2016
  - Draft survey reviewed with Task Force/Staff
  - Staff/stakeholder interviews conducted
  - Demographics + Trends reports finalized
- February 2016
  - Survey issued, for statistically valid results
  - Existing facility review – site, buildings, infrastructure, etc.
- March 2016
  - Survey results available
  - Design team develops initial Program for review/approval
  - Final Program approved
- April 2016
  - Concept Design, Cost Estimates presentation to Task Force/Staff/City Council
  - Public Open House for Feedback
  - Design team begins Study's Final Design, Cost Estimates
- May 2016
  - Final Design, Cost Estimates presentation to Task Force/Staff/City Council
- June 2016
  - Finalized Interior and Exterior Illustrations
  - Final Report
- July 2016
  - Presentation of Final Report Including Design, Cost Estimates, O&M Analysis

## PUBLIC OUTREACH EFFORTS

- Public Open Houses December 2nd & 9th, 2015
  - Comment Cards Available at rec center and online
  - Dec. 2 - 72 Attendees
  - Dec. 9 - 125 attendees
  - 128 Comment cards
- May 4th, 2016 – 2 Open Houses held at Rec Center
  - 10:30 a.m. to 12:00 p.m. -182 attendees
  - 6:00 p.m. to 7:30 p.m. - 122 attendees
- Internet Survey February 2016
  - 4,000 surveys mailed to a random sample of Louisville respondents in Feb. 2016
  - Final sample size: 690
  - Response rate: 15% (vs. target of 10%)
  - Margin of error: +/- 3.7 percentage points
- Follow-up Phone Survey to Eligible Voters April 27-May 9, 2016
  - 4973 eligible households dialed
  - Final sample size: 400
  - Response rate: 8%

## PUBLIC OUTREACH EFFORTS

### Presentations to Boards and Commissions in Louisville

- Business Retention and Development
- Open Space Advisory Board
- Revitalization Commission
- Board of Adjustment
- Sustainability Advisory Board
- Cultural Council
- Golf Course Advisory Board
- Local Licensing Authority
- Historical Commission
- Parks and Public Landscape Advisory Board
- Senior Advisory Board
- Youth Advisory Board

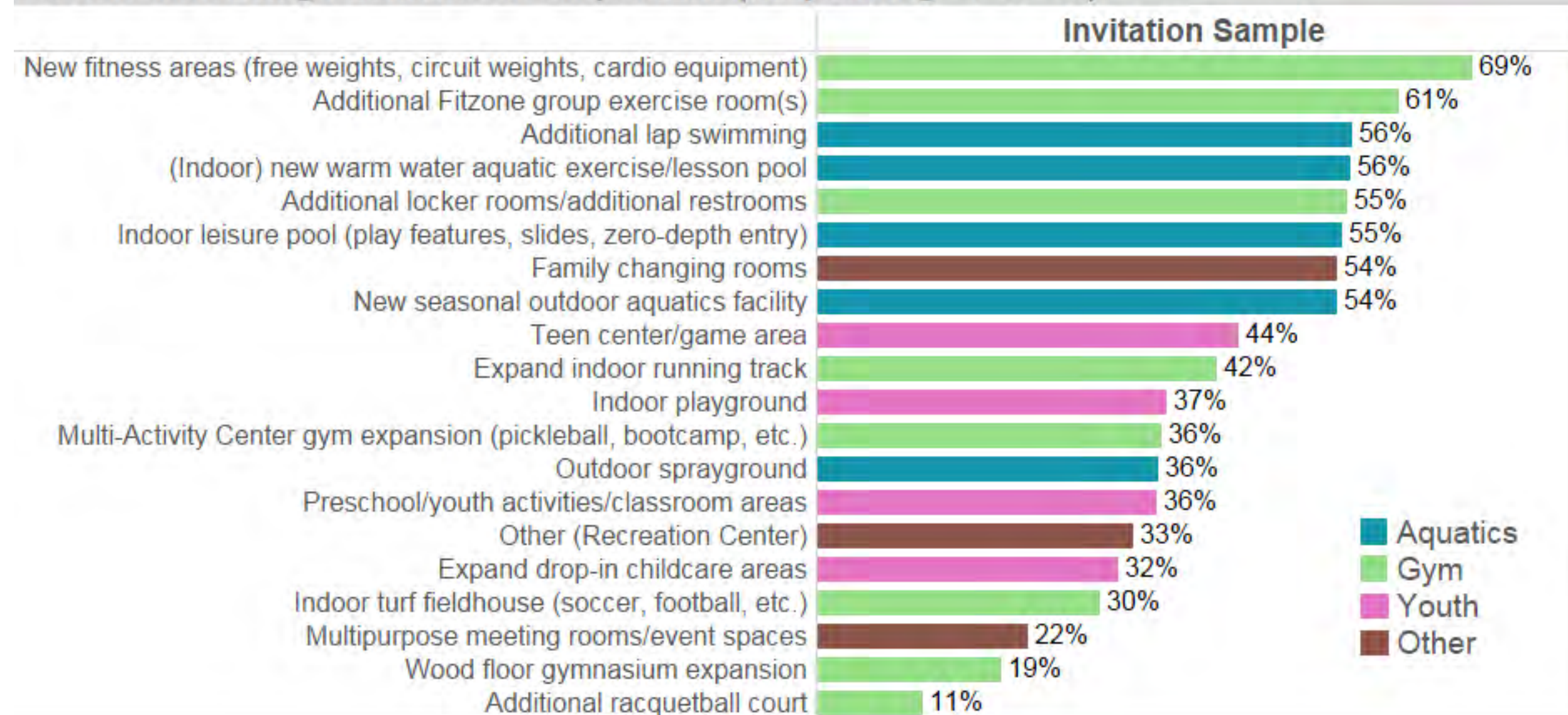


# Recreation/Senior + Aquatic Center Study

## EXCERPT FROM INTERNET SURVEY RESULTS

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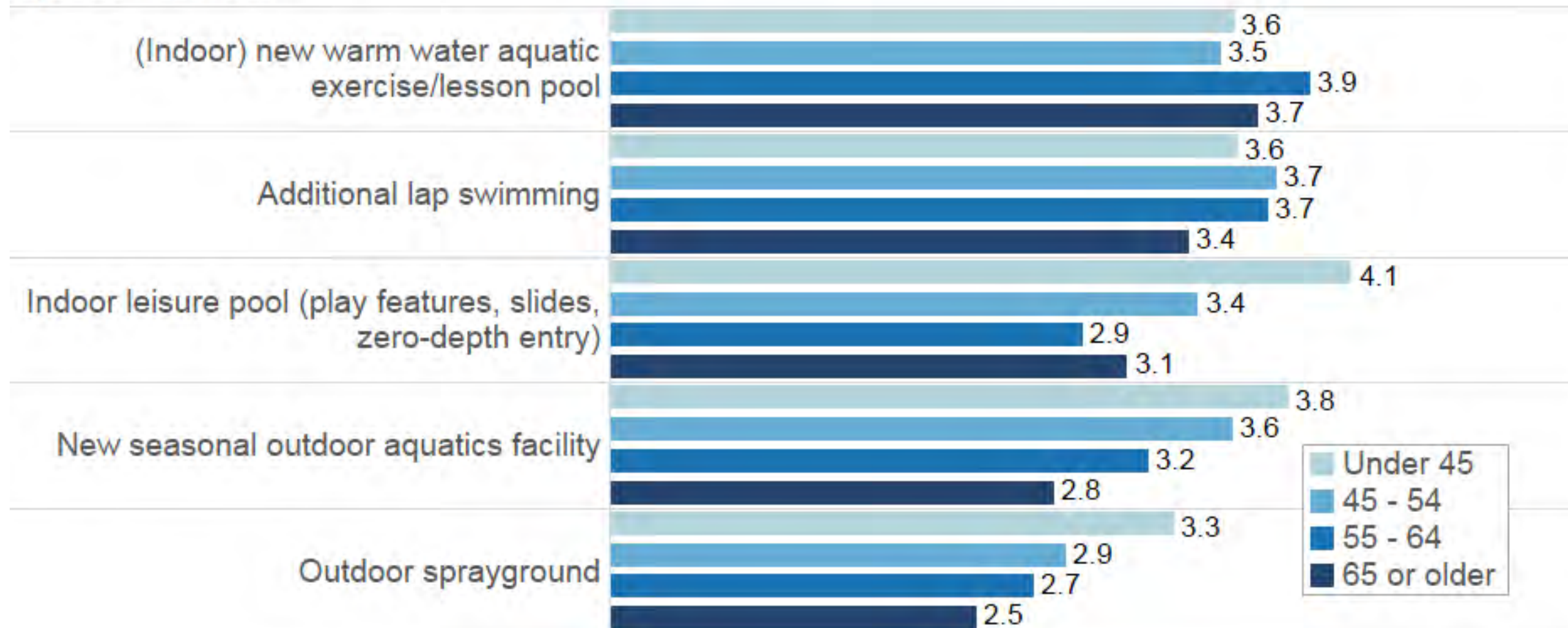
### Importance of Recreation Center Facilities to the Louisville Community *Percent Indicating Facilities are Important (Responding "4" & "5")*



### Importance of Recreation Center Facilities to the Louisville Community - by Respondent Age (Invitation Sample Only)

Average Rating (1=Not at all Important, 5=Very Important)

#### Aquatic Facilities



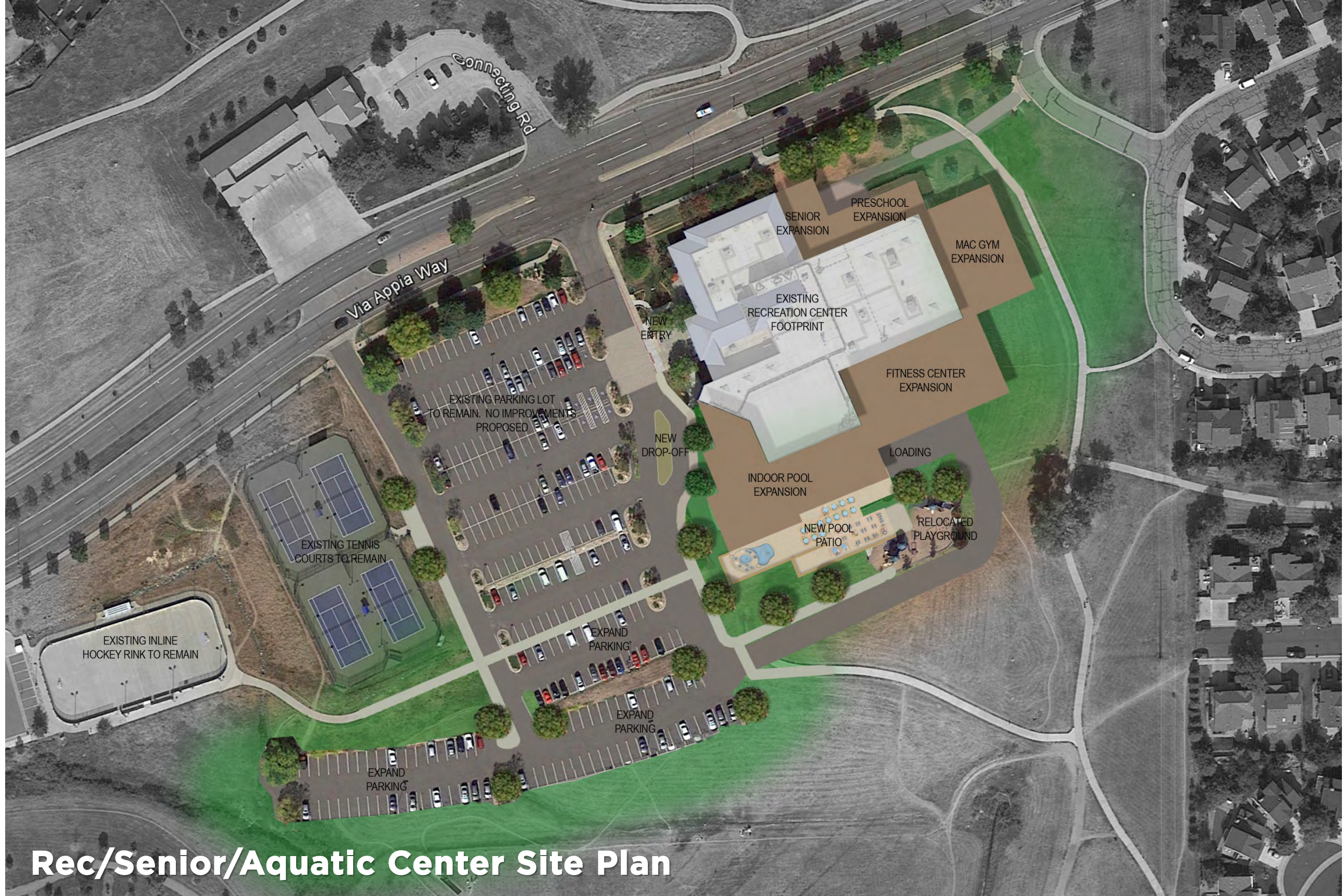
## TASK FORCE IMPROVEMENTS RECOMMENDATION

- New Fitness Center Expansion including Cardio, Free & Machine Weights and Plyometric Zone
- New Leisure Pool with Play Features + Indoor/Outdoor Access to New Patio Space
- Generous + Unique Outdoor Patio Space near Natatorium
- Outdoor Spray ground Aquatic Play Features
- New Aqua Exercise/Lesson/Fitness Pool with 4-25m lap lanes
- Renovate Existing Lap pool, Keep Diving
- New Multi-Activity Turf Gymnasium
- Family Change Locker Rooms
- New Fitness Area Locker Rooms
- Wellness/Health Consultation Suite
- New Group Exercise Studios
- New Spinning Studio
- Pool Party Room
- Memory Square Outdoor Pool/Poolhouse Improvements
- Children + Youth – (2) Youth Activity Classrooms, Expanded Drop-In Childcare, New Indoor Playground
- Seniors – New Reception, Dedicated Lounge Area, Expanded Game Area, More Multi-Purpose Meeting Space
- New Catering Kitchen
- Expanded Administrative Office s and Support Spaces
- Deferred Maintenance Items, mechanical, electrical and systems upgrades, increased sustainability in the existing building
- Highly Sustainable building, LEED Gold Equivalent



# **Recreation/Senior + Aquatic Center**



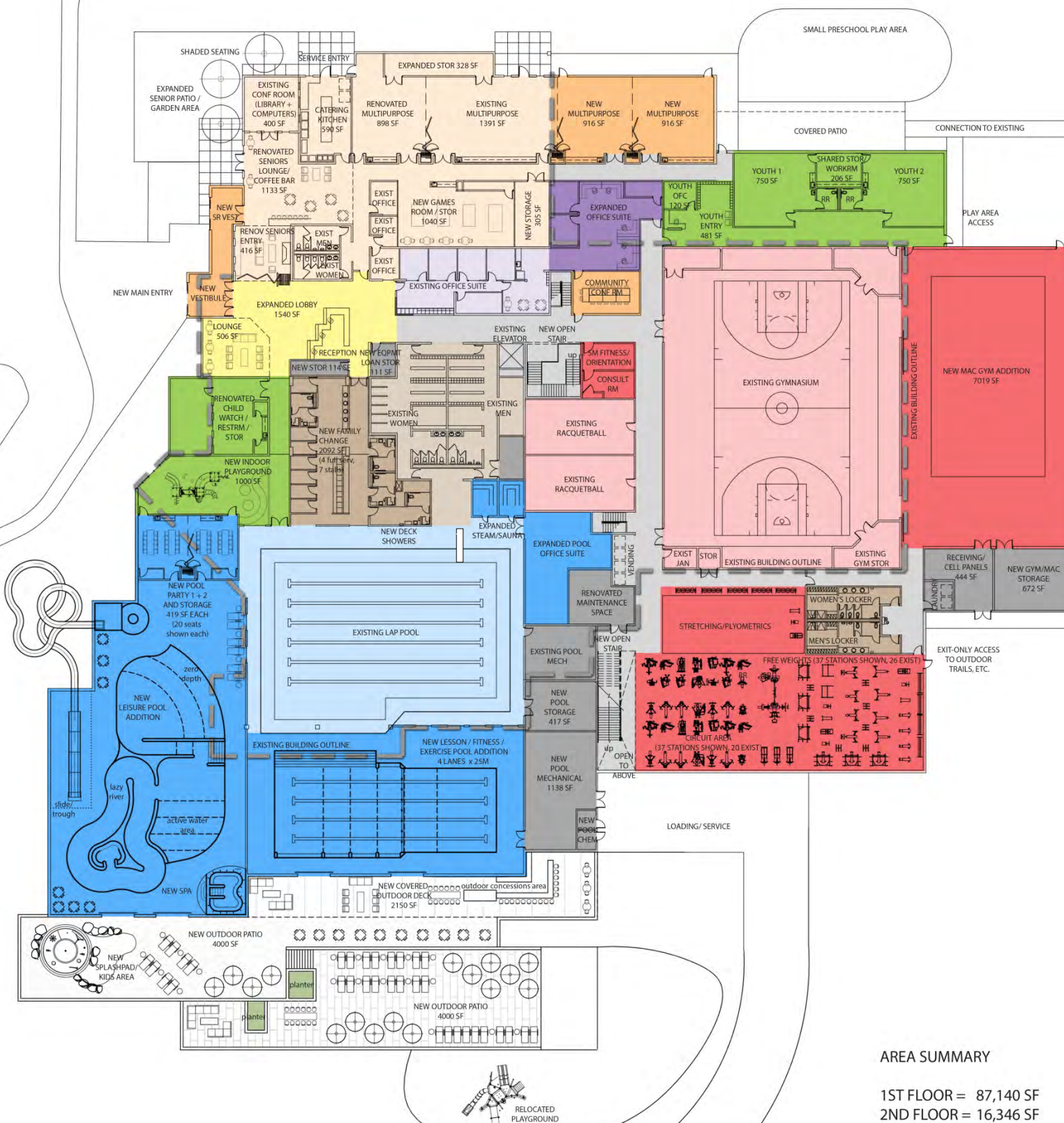


## Rec/Senior/Aquatic Center Site Plan



# Recreation/Senio

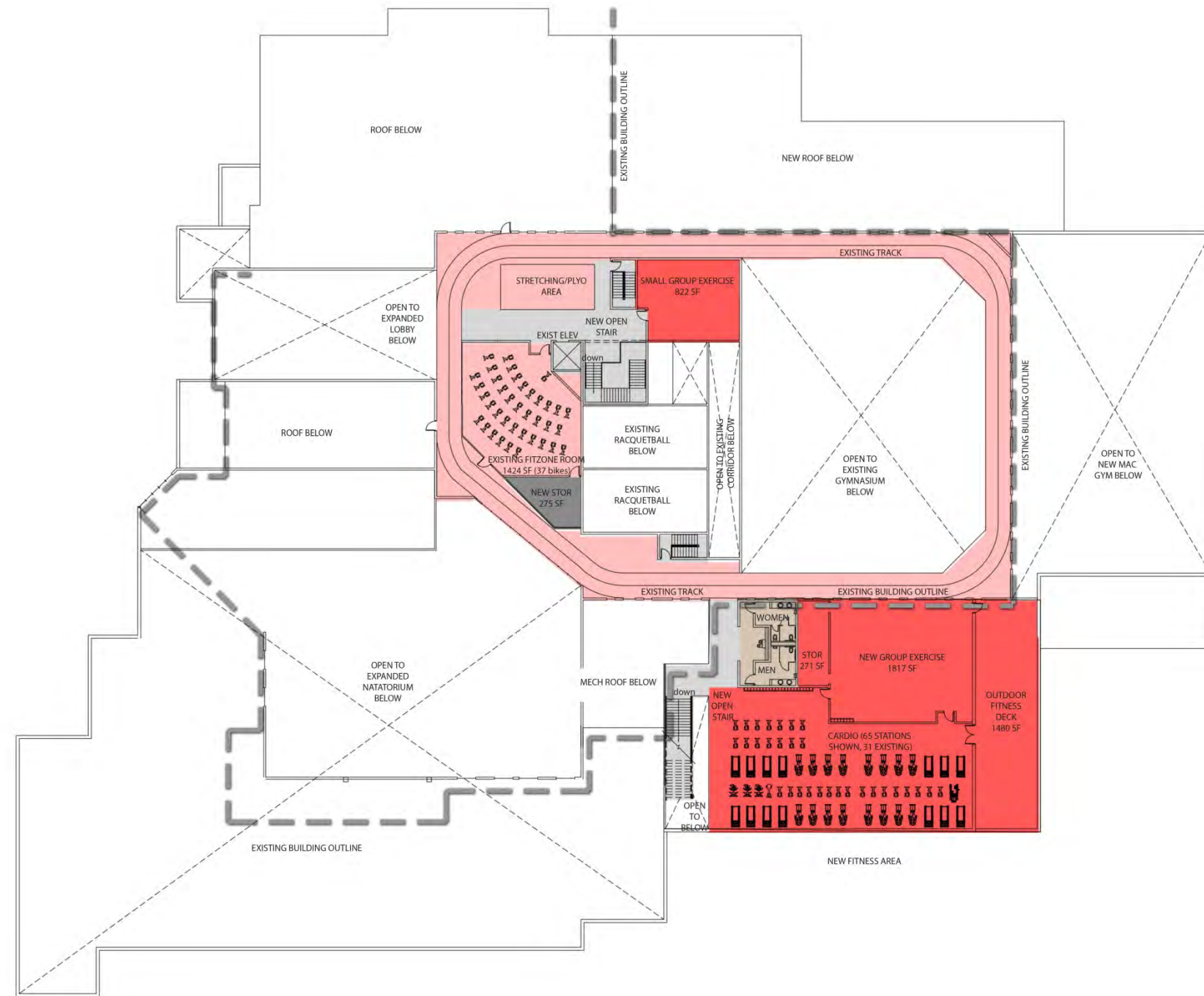
## 1<sup>st</sup> Floor Plan



## AREA SUMMARY

1ST FLOOR = 87,140 SF  
2ND FLOOR = 16,346 SF

TOTAL SF = 103,486 SF



# Recreation/Senior Center: 2nd Floor Plan

## AREA SUMMARY

1ST FLOOR = 87,140 SF  
2ND FLOOR = 16,346 SF

TOTAL SF = 103,486 SF



## Comparable Program Area of the Proposed Plan

Program	Current Area	Proposed Area
Fitness Center-Strength	1,670	4,700
Fitness Center-Cardio/Plyometric	1,680	5,195
Group Exercise	1,600	4,500
Gymnasium	9,230	15,245
Aquatics	11,785	24,850
Senior Areas	7,050	10,783
Youth Areas	1,920	4,975
Administration	1,391	2,890





**View of Building Additions + Outdoor Patio**





**View of New Rec/Aquatics Center + Senior Center Entries**



View of New Outdoor Patio







View of New Leisure Pool





View of New Fitness Areas





View of New Turf Activity Gym





View of the Indoor Playground



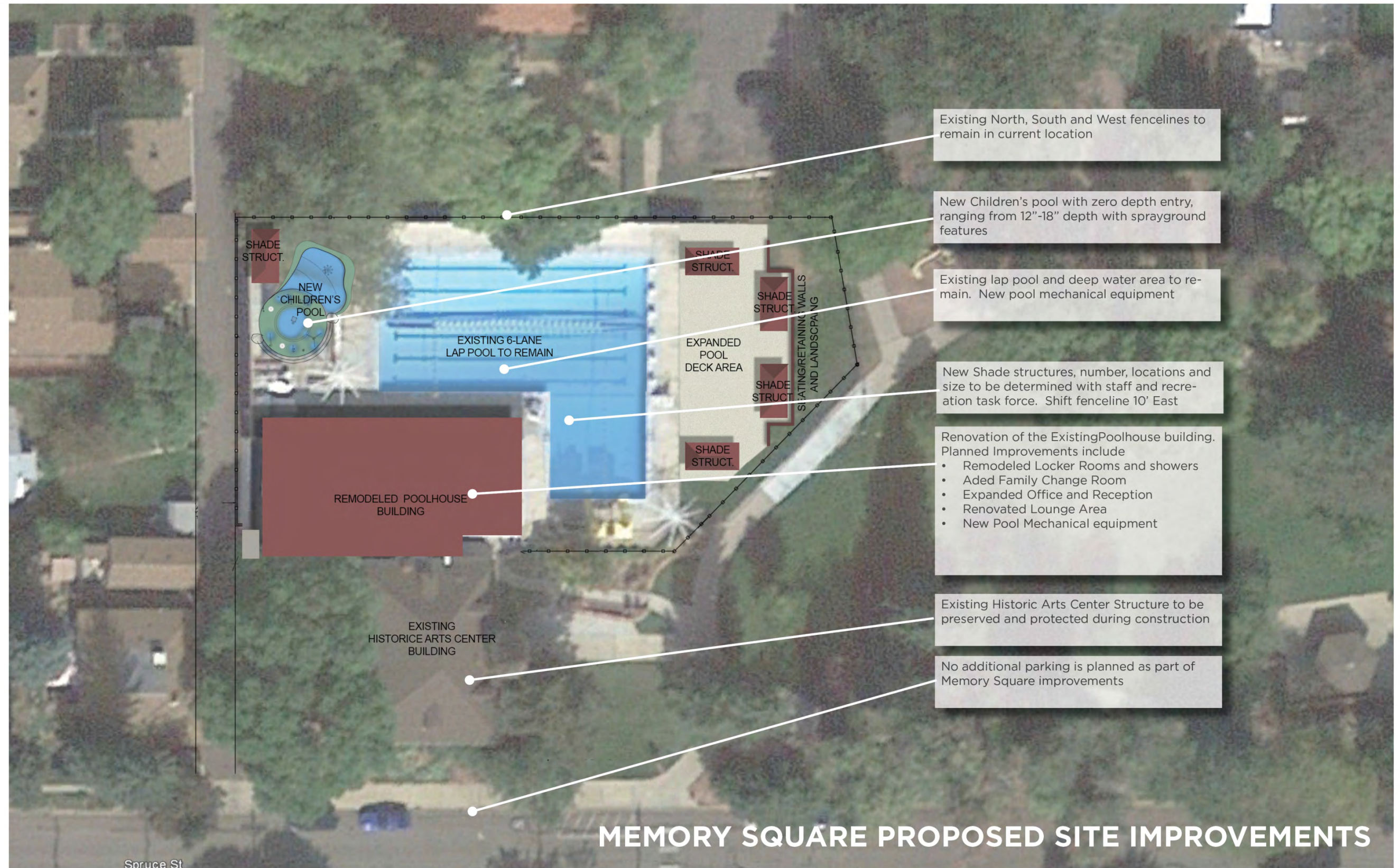


View of Senior Lounge



# Memory Square





Existing North, South and West fencelines to remain in current location

New Children's pool with zero depth entry, ranging from 12"-18" depth with sprayground features

Existing lap pool and deep water area to remain. New pool mechanical equipment

New Shade structures, number, locations and size to be determined with staff and recreation task force. Shift fenceline 10' East

Renovation of the Existing Poolhouse building. Planned Improvements include

- Remodeled Locker Rooms and showers
- Added Family Change Room
- Expanded Office and Reception
- Renovated Lounge Area
- New Pool Mechanical equipment

Existing Historic Arts Center Structure to be preserved and protected during construction

No additional parking is planned as part of Memory Square improvements

# MEMORY SQUARE PROPOSED SITE IMPROVEMENTS

Spruce St





Memory Square Floor Plan





View of Memory Square Poolhouse + Cabanas



# **Sustainable Opportunities**



# Issues Specific to Recreation Facilities

Large Volume Spaces

Sporadic Uses Patterns

High Occupancy Uses

Pools and Natatoriums

Active Occupants

Expectation for a Healthy Indoor Environment





# Sustainable Principles

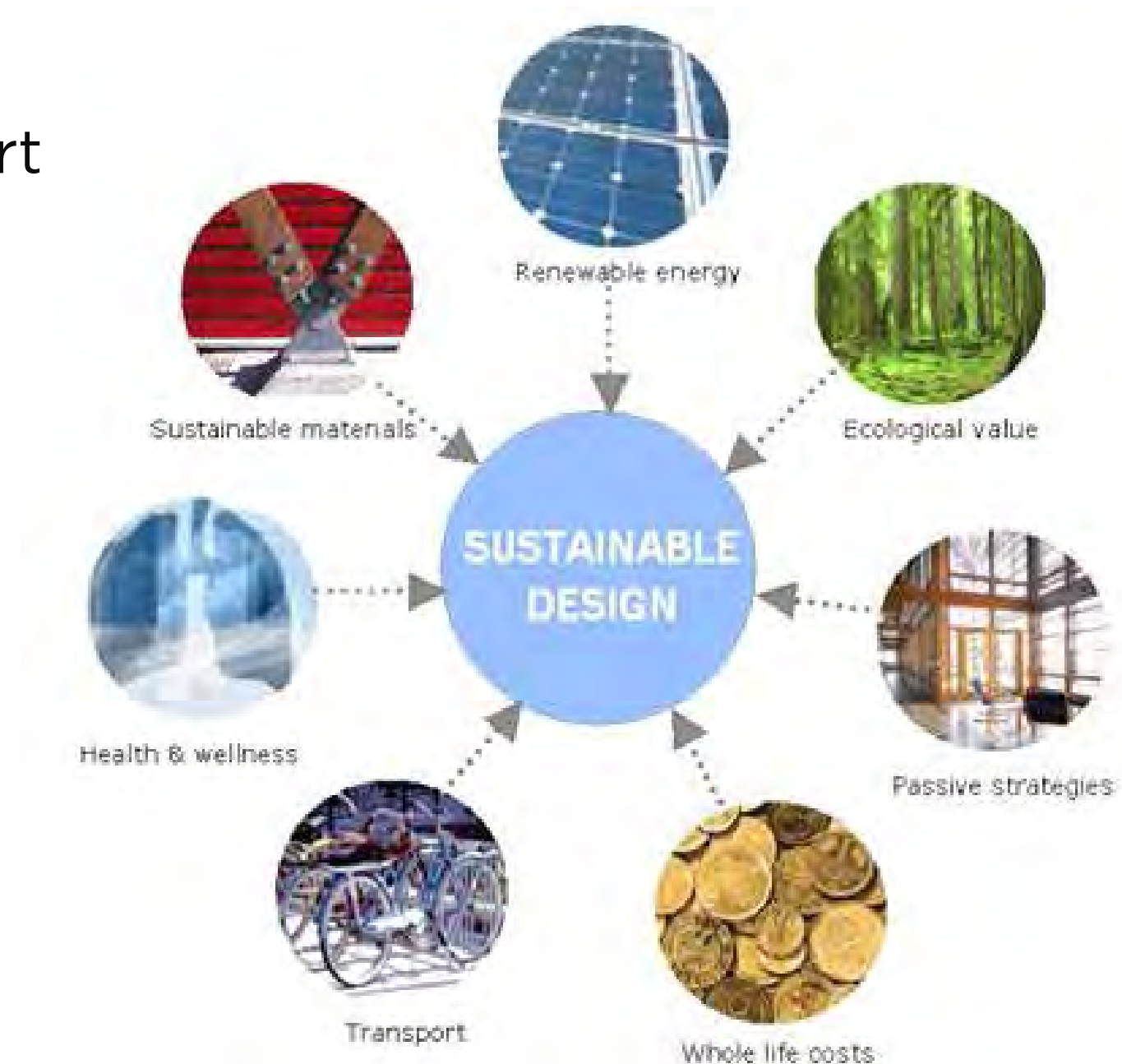
Energy Savings and Cost Reduction

Resource Conservation

Indoor Environmental Health and Comfort

Life-Cycle Maintenance and Longevity

Expectation for a Healthy Environment





**The Overall Goal is to design a building that could be certified at the LEED Gold Level**

**What are the Benefits of a LEED Gold (or better) Building?**

- High level of Energy Performance - <than 30% savings above ASHRAE
- High level of water conservation - <40% water efficient
- Resource conservation – expect greater than 20% recycled content
- Zero VOC's or other toxins in construction materials
- Building could be designed to accommodate potential solar roof array or other renewable options in the future

**What are the methods by which we achieve this standard in recreation centers?**



# Designing a Sustainable Building

Categorize the Sustainable Opportunities

Evaluation of Strategies

Develop the Most Appropriate Solutions



Figure 2-2: Gymnasium view from track (Baseline, Equinox 12:00 PM)





# Site Design

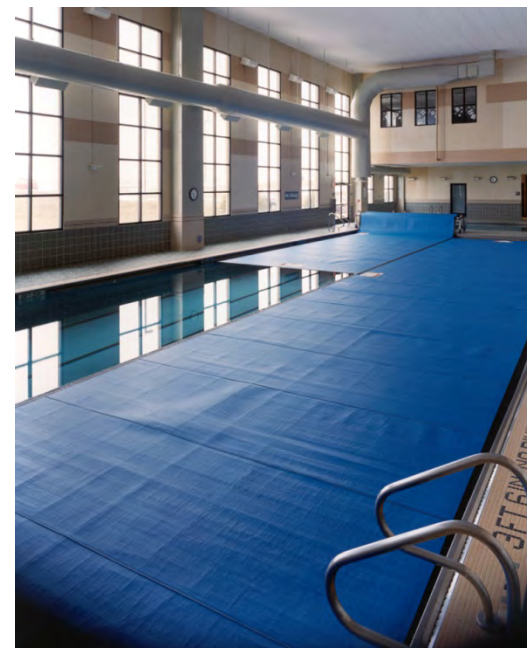
- Protect and restore existing open space and mature landscaping
- Limit the impact of site development, minimize site disturbance footprint
- Utilize native and low water-use plantings
- Encourage multi-modal transportation with additional bike racks and trails to public transit
- Investigate natural water run-off, water quality treatment, and bio-swales in site and new parking areas
- Limit the heat island effect by shading parking and using light colored site materials





# Water Conservation & Efficiency

- Utilize high-efficiency plumbing fixtures, waterless toilets and auto-sensing fixtures when appropriate
- Target the pool for water saving strategies
- High-rate regenerative Pool filters can save hundreds of thousands of gallons annually in backwashing water
- Limit additional turf areas and reduce irrigation volume
- Pool Covers save water and energy





# Energy Conservation

## Mechanical Efficiency

- Highly insulated building envelope and high performance low-e insulated glass for increased energy performance
- High efficiency economized mechanical for optimal energy performance.
- Consider efficiency measures including hydronic heating and cooling, direct or indirect evaporative cooling, heat recovery, destratifying fans and demand control ventilation.
- Highly controllable system with direct digital control & monitoring, variable drive fans & motors.
- Roof and Electrical System will be “solar ready” for inclusion of rooftop solar photovoltaics

## Electrical Energy Efficiency

- Electrical loads and lighting represent the largest energy use of most buildings
- Incorporate High efficiency LED light fixtures throughout
- Automatic daylighting controls and occupancy sensors in sporadic use areas



# Material and Resource Conservation

- Recognize that the most sustainable approach is to maintain or repurpose the existing building
- Utilize recycled content materials only if they prove to be appropriate to the use, are easily maintained and have a life-cycle longevity that ensures they will perform and avoid the landfill prematurely
- Consider every aspect of material selection, recyclability, recycled content, shipping distances, manufacturing techniques, harmful content, and longevity





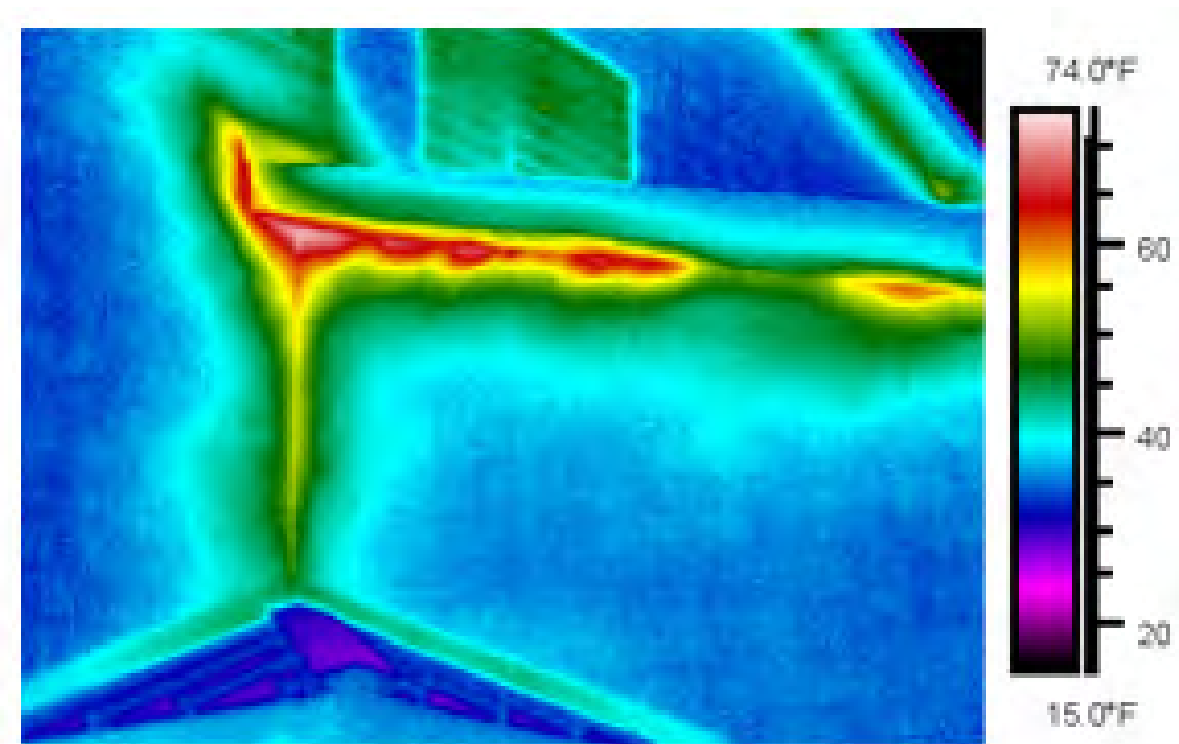
# Indoor Environmental Quality

- Users in recreation buildings expect a healthy environment
- Employ 100% outside air dehumidification in the pool for better indoor air quality
- Focus on exemplary indoor air quality with minimally off-gassing materials, natural ventilation and high-rate turnover
- Provide natural daylight and views whenever appropriate
- Operable windows, when appropriate, increase the comfort of users



# Existing Building Analysis

- Fundamental Systems Commissioning
- Infrared Scanning of building to detect heat loss
- Infiltration study to identify leaks in the envelope
- Analyze energy performance and usage to determine potential impacts





# **Cost Analysis**





## Cost Estimate Update

Category	*Total Project Cost (\$)
Site Construction	\$ 2,733,892
New Additions	\$20,520,773
Existing Area Renovation	\$ 3,266,438
Memory Square Improvements	\$ 1,385,395
Project Management	\$ 392,905
<b>Subtotal of Construction Costs</b>	<b>\$28,299,403</b>
 Bond Issuance Costs	 \$ 300,000
<b>Project Total Cost</b>	<b>\$28,599,403</b>

\*Total project cost includes the following budgets:

20%	Escalation and Design Contingency
7%	Design and Engineering Fees
6%	Fixtures, Furnishings and Equipment
2%	Permits, Surveys, Reports, Testing & Inspection



# Outdoor Aquatic Center

- The study estimated the cost of a stand-alone outdoor leisure/lap pool complex between \$15M-\$18M.
- Value Decision based on the large number of requested amenities within the community
- Considered the annual usage of a 3 month amenity versus a 12 month amenity
- Considered the operational impact of managing 3 aquatic sites in the City
- Memory square required significant investment for deferred maintenance and necessary improvements
- The outdoor deck proposed for the Recreation/Senior Center and outdoor spray amenity will provide additional outdoor aquatic enjoyment. The open connection to the indoor pool allows for shade, and protection from harmful rays of the sun while still enjoying a pool environment.



# **Operation & Management Analysis**



# Operational Expense and Revenue Summary

Proposed Total Expenses with Expansion	\$3,684,788
Proposed Total Revenue with Expansion	- \$2,389,990
Total Subsidy @ 65% Revenue Recovery	<b>\$1,294,798</b>

Current/2016 Annual Subsidy	\$ 726,179
Additional Annual Subsidy with Expansion	+ \$ 568,619*
Total Subsidy @ 65% Revenue Recovery	\$1,294,798

\*Any new tax would fund the expansion subsidy only, not current operations.



# Operational Expense and Revenue Detail

Revenues	Current	Expansion	Total
Recreation Administration			
Center Management (Admissions)	\$ 1,032,582	\$ 143,575	\$ 1,346,437
Fee Increase		\$170,280	\$ 170,280
Aquatics	\$ 143,510	\$ 86,680	\$ 230,190
Fitness (Group Exercise)	\$ 108,233	\$100,625	\$ 208,858
Youth	\$ 212,587		\$ 212,587
Memory Square	\$ 36,939		\$ 36,939
Youth Sports	\$ 134,594		\$ 134,594
Adult Sports	\$ 47,644		\$ 47,644
Senior Services	\$ 82,043		\$ 82,043
Senior Meal	\$ 48,000		\$ 48,000
Nite at the Rec	\$ 42,698		\$ 42,698
<b>Total</b>	<b>\$ 1,888,830</b>	<b>\$ 501,160</b>	<b>\$ 2,389,990</b>
Expenses			
Expenses (Inclusive of Personnel, Supplies, Services)	\$ 2,062,307	\$ 765,215	\$ 2,827,522
Public Works – Building Maintenance	\$ 427,702	-	\$ 427,702
Recreation/Senior Center Repair and Replacement	\$ 125,000	\$304,564	\$429,564
<b>Total</b>	<b>\$ 2,615,009</b>	<b>\$1,069,779</b>	<b>\$ 3,684,788</b>
Cost Recovery	72%	47%	65%
<b>Total Surplus/Deficit</b>	<b>\$ (726,179)</b>	<b>\$ (568,619)</b>	<b>\$ (1,294,798)</b>



An architectural rendering of a modern, two-story building with a flat roof and large glass windows. The building features a mix of light-colored stone or concrete and wood paneling. A large, open courtyard in front of the building is filled with green grass. A paved path leads from the foreground towards the building. In the foreground, a person is riding a red bicycle on the path. To the left, there is a parking lot with several cars. In the background, there are trees and a blue sky with scattered clouds. The word "Questions?" is overlaid in large white text on the right side of the image.

# Questions?